<u>**REMARKS**</u>

The Examiner is thanked for the performance of a thorough search and for the telephone interview conducted on December 17, 2007. By this amendment, Claims 1, 3–5, 12, 14, 23–25, 27–29, and 34–39 have been amended. No claims have been added. Claims 2, 26, and 33 have been canceled. Hence, Claims 1, 3–25, 27–32, and 33–39 are pending in this application.

The amendments to the claims do not add any new matter to this application. The amendments to Claims 1, 12, and 23–25 are supported by at least ¶ [0033] of the Specification. The amendments to Claims 34–39 address informalities. The amendments to Claims 3–5, 14, and 27–29 are supported by at least the claims as originally submitted. The amendments to the claims were made to improve the readability and clarity of the claims and not for any reason related to patentability. All issues raised in the Office Action are addressed hereinafter.

I.     INTERVIEW SUMMARY

Applicants thank the Examiner for the telephone interview conducted on December 17, 2007. Examiner Yalew represented the USPTO and the applicants were represented by Karl T. Rees and Christopher J. Palermo. The parties discussed Claims 1, 2, 10, and 14. In particular, Applicants proposed language to amend Claim 1 so as to clarify how Applicants' Claim 1 is patentable over the cited references. Applicants also pointed out novel features of Claims 10 and 14 that are not found in the cited references. In response, Examiner suggested that Applicants submit a response to the Office Action with the appropriate amendment and arguments, in order to allow him more time to review the cited references. No agreement was reached regarding patentability.

II.    CLAIM REJECTIONS BASED ON 35 U.S.C. § 103

      A.     ***Obviousness under 35 U.S.C. § 103(a): Sharma and Daude.***

Claims 1, 3, 6–8, 10–13, 23–25, 27, 30–32, 34, and 37–39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,754,716 (hereinafter *Sharma*) in view of

U.S. Patent No. 7,231,660 B1 to Daude, et al. (hereinafter *Daude*). Applicants traverse the

rejection. Reconsideration is respectfully requested.

## INDEPENDENT CLAIM 1

Claim 1 currently recites, among other elements:

> wherein determining that the particular subsystem is authorized
>
> comprises **determining that the particular subsystem *is* a**
>
> Dynamic Host Configuration Protocol (DHCP) server, an
>
> Authentication, Authorization, Accounting (AAA) server or a
>
> Network Address Translator (NAT);

The above language clarifies that Claim 1 features determining whether a particular

subsystem is authorized **based on the type of subsystem** sending the instruction to update the

ARP table. Specifically, a subsystem is determined to be authorized only if it is a DHCP server,

AAA Server, or NAT.

For example, a router implementing the steps of Claim 1 might receive instructions to

update its ARP table. The router might then determine what type of subsystem sent the

instruction. If the router determines that the subsystem was a DHCP server, AAA Server, or

NAT, the router may determine that the subsystem is authorized and follow the instructions.

Otherwise, the router may ignore the ARP instruction.

*Sharma*, by contrast, teaches to determine that a network device is authorized to send an

ARP instruction by determining whether or not the IP address of the network device is in "a list

of authorized IP addresses," *Sharma* at col. 3, lines 12–16, and col. 5, lines 20–33, or by

determining whether or not its "protocol and L2 [MAC] address . . . form an authorized address

pair," *Sharma* at col. 7 lines 10–15. In other words, *Sharma* teaches to make an authorization

determination based on only the IP address and the MAC address.

It is not possible to determine the type of a subsystem using just the IP address or MAC

address of the subsystem. IP addresses and MAC addresses are assigned independent of the

subsystem type. Thus, *Sharma* fails to teach any means for "determining that [a] particular subsystem is a is a DHCP server, AAA Server, or NAT." In fact, Applicants' Claims 7 and 8, as well as the steps outlined in ¶ [0039]-[0040] of the specification, feature looking up an IP address or MAC address in an authorization list. These claims would be entirely redundant if the determination of a subsystem type in Claim 1 were based solely on the IP address and MAC address of the subsystem.

Likewise, *Daude* is entirely silent about determining that a subsystem is authorized. Nor does *Daude* even hint at determining that a subsystem is authorized based on the type of subsystem. For at least the foregoing reasons, then, the combination of *Sharma* and *Daude* fails to make obvious each and every element of Claim 1, as required by 35 U.S.C. § 103(a). Reconsideration of the rejection as to Claim 1 is respectfully requested.

## THE AMENDED LANGUAGE

The above cited "wherein" clause is similar to the language of Applicants' now-canceled Claim 2. The Office Action had previously rejected the now-canceled Claim 2 based on U.S. Pub. No. 2001/0054101 by Wilson, et al. (hereinafter *Wilson*). However, the feature of the above cited clause in present Claim 1 is substantively different than the feature of now-canceled Claim 2, in that now-canceled Claim 2 simply required the particular subsystem to be a DHCP server, AAA Server, or NAT. By contrast, current Claim 1 requires that the authorization determination be based on whether the particular subsystem a DHCP server, AAA Server, or NAT.

More importantly, while *Wilson* may teach that a network device on a network may be a DHCP server, AAA server, or NAT, *Wilson* is absolutely silent about making an authorization determination for a subsystem based on the subsystem's type. Therefore, *Wilson* fails to teach "determining that [a] particular subsystem is a DHCP server, AAA Server, or NAT."

## INDEPENDENT CLAIMS 12, 23, 24, AND 25

Although expressed in different formats, independent Claims 12, 23, 24, and 25 also recite the features quoted above for Claim 1. Because Claims 12, 23, 24, and 25 recite all the features described above for Claim 1, Claims 12, 23, 24, and 25 are allowable over the combination of *Sharma* and *Daude* for the same reasons given above for Claim 1. Reconsideration of the rejection as to Claims 12, 23, 24, and 25 is respectfully requested.

## DEPENDENT CLAIMS 3, 6–8, 10–11, 13, 27, 30–32, AND 37–39

Claims 3, 6–8, and 10–11 depend upon independent Claim 1. Claim 13 depends upon independent Claim 12. Claims 27 and 30–32 depend upon independent Claim 24. Claims 34 and 37–39 depend upon independent Claim 25. As discussed above, the combination of *Sharma* and *Daude* fails to disclose every element of independent Claims 1, 12, and 23–25. Claims 3, 6–8, 10–11, 13, 27, 30–32, and 37–39 each include the above-cited distinguishable features by dependency. Thus, the combination of *Sharma* and *Daude* also lacks at least one feature found in each of Claims 3, 6–8, 10–11, 13, 27, 30–32, and 37–39.

Additionally, each of the dependent claims recites at least one additional limitation that independently renders it patentable over the combination of *Sharma* and *Daude*. For example, Claim 10 features the limitation that "the ARP table is updated only in response to instructions that are not ARP messages." *Sharma* does not contemplate ignoring all ARP messages. In fact, *Sharma* appears to contemplate that ARP updates occur only in response to ARP messages. The Office Action alleges that *Sharma* discloses this feature in col. 3, lines 6–34. However, this passage of Sharma discloses that, while some ARP messages may indeed be ignored, authorized ARP messages are still used to update the ARP table. Thus, *Sharma* does not disclose that "the ARP table is updated only in response to instructions that are not ARP messages."

However, in light of the fundamental differences already identified, and to expedite prosecution, separate arguments for each patentable feature of Claims 3, 6–8, 10–11, 13, 27, 30–32, and 37–39 are not provided at this time. Applicants reserve the right to make these

arguments at a future date. Applicants respectfully request reconsideration of the rejection as to Claims 3, 6–8, 10–11, 13, 27, 30–32, and 37–39.

### B.      Obviousness under 35 U.S.C. § 103(a): Sharma, Wilson, and Daude.

Claims 2, 4–5, 26, 28–29, and 35–36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sharma* in view of *Wilson* and *Daude*. Applicants traverse the rejection. Reconsideration is respectfully requested.

Claims 2, 26, and 33 are hereby canceled, thereby obviating the rejection as to those claims.

Claims 4–5, 28–29, and 35–36 depend upon Claims 1, 24, and 25, respectively. As discussed above, the combination of *Sharma* and *Daude* fails to disclose every element of independent Claims 1, 24, and 25. The limitations, identified above, which are missing from *Sharma* and *Daude*, are also missing from *Wilson*. Consequently, the combination of *Sharma*, *Daude* and *Wilson* fails to disclose every element of Claims 4–5, 28–29, and 35–36. Thus, Claims 4–5, 28–29, and 35–36 are patentable over the combination of *Sharma*, *Daude* and *Wilson*.

Additionally, each of the dependent claims recites at least one additional limitation that independently renders it patentable over the combination of *Sharma*, *Daude* and *Wilson*. In regards to Claim 4, 28, and 35, while Wilson may teach that a network device on a network may be a NAT server, *Wilson* is absolutely silent about making an authorization determination for a subsystem based on the fact that the subsystem is an NAT server. Therefore, *Wilson* fails to teach "wherein determining whether the particular system is authorized comprises determining whether <u>the particular subsystem is </u>a Network Address Translator (NAT)."

In regards to Claim 5, 29, and 36, while Wilson may teach that a network device on a network may be an AAA server, *Wilson* is absolutely silent about making an authorization determination for a subsystem based on the fact that the subsystem is a AAA server. Therefore, *Wilson* fails to teach "wherein determining whether the particular system is authorized comprises

determining whether <u>the particular subsystem is </u>a Authentication, Authorization, Accounting (AAA) server."

Removal of the rejection as to Claims 2, 4–5, 26, 28–29, and 35–36 is respectfully requested.

### C.  Obviousness under 35 U.S.C. § 103(a): Sharma, Daude, and Massarani.

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sharma* in view of *Daude* and in further view of U.S. Patent No. 6,393,484 B1 to Massarani, et al. (hereinafter *Massarani*). Applicants traverse the rejection. Reconsideration is respectfully requested.

Claim 9 depends upon Claim 1. As discussed above, the combination of *Sharma* and *Daude* fails to disclose every element of independent Claim 1. The limitations, identified above, which are missing from *Sharma* and *Daude*, are also missing from *Massarani*. Consequently, the combination of *Sharma*, *Daude* and *Massarani* fails to disclose every element of Claim 9. Thus, Claim 9 is patentable over the combination of *Sharma*, *Daude* and *Massarani*. Removal of the rejection as to Claim 9 is respectfully requested.

Additionally, Claim 9 recites at least one additional limitation that independently renders it patentable over the combination of *Sharma*, *Daude* and *Massarani*. However, in light of the fundamental differences already identified, and to expedite prosecution, separate arguments for each patentable feature of Claim 9 are not provided at this time. Applicants reserve the right to make these arguments at a future date.

### D.  Obviousness under 35 U.S.C. § 103(a): Massarani, Chien, and Daude.

Claims 14–22 are rejected under 35 U.S.C. § 103(a) as being unpatentable *Massarani* in view of U.S. Pub. No. 2003/0115345 to Chien et al. (hereinafter *Chien*) and further in view of *Daude*.

**INDEPENDENT CLAIM 14**

Claim 14 presently recites, among other elements:

receiving **a request to update the ARP table** from a Dynamic

Host Configuration Protocol (DHCP) subsystem of a network

device **in a DHCP message** that indicates a network layer address

and a corresponding data link layer address;

This language clarifies that Claim 14 features a DHCP message that includes a request to update the ARP table. By contrast, such a request is not included in standard DHCP messages.

The Office Action alleges that *Chien* discloses this feature in ¶¶ [0063–0066]. However, *Chien* utilizes only standard DHCP messages. While *Chien* discloses using certain information from a DHCP message (the 'chaddr' and 'yiaddr' fields) to assist in updating the ARP table, *Chien* at ¶ [0064], *Chien* does not propose that a DHCP message may include a request to update the ARP table. Therefore Chien fails to disclose "receiving **a request to update the ARP table . . . in a DHCP message**."

Furthermore, the Office Action acknowledges that *Massarani* does not disclose this feature. Nor does the Office Action allege that *Daude* teaches such a feature. Therefore, the combination of *Massarani*, *Chien*, and *Daude* fails to make obvious each and every element of Claim 14, as required by 35 U.S.C. § 103(a). Reconsideration of the rejection as to Claim 14 is respectfully requested.

## DEPENDENT CLAIMS 15–22

Claims 15–22 depends upon Claim 14. As discussed above, the combination of *Massarani*, *Chien*, and *Daude* fails to disclose every element of independent Claim 14. Claims 15–22 each include the above-cited distinguishable features by dependency. Thus, the combination of *Massarani*, *Chien*, and *Daude* also lacks at least one feature found in each of Claims 15–22. Removal of the rejection as to Claim 15–22 is respectfully requested.

Additionally, each of Claims 15–22 recites at least one additional limitation that independently renders it patentable over the combination of *Massarani*, *Chien*, and *Daude*. However, in light of the fundamental differences already identified, and to expedite prosecution,

separate arguments for each patentable feature of Claims 15–22 are not provided at this time.
Applicants reserve the right to make these arguments at a future date.

III.    CONCLUSION

For the reasons set forth above, all of the pending claims are now in condition for
allowance.  The Examiner is respectfully requested to contact the undersigned by telephone
relating to any issue that would advance examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is
hereby made. If applicable, a check for the petition for extension of time fee and other applicable
fees is enclosed herewith. If any applicable fee is missing or insufficient, throughout the
pendency of this application, the Commissioner is hereby authorized to any applicable fees and
to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
HICKMAN PALERMO TRUONG & BECKER LLP

Date:  December 19, 2007            /KarlTRees#58983/_____
                                    Karl T. Rees, Reg. No. 58,983

2055 Gateway Place, Suite 550
San Jose, CA  95110

(408) 414-1233

Facsimile: (408) 414-1076